

IN THE CLAIMS

Please amend claims 1, 7, 12-13, 21, 26, 31, and 38 as indicated below.

Please add new claims 47-57 as indicated below.

1. (Currently Amended) A method for providing dynamic configuration services comprising:

requesting, with a local device, configuration services from a first remote device ~~coupled to the~~ over a network in response to connecting the local device to the network;
operating the local device as a configuration services server to provide configuration services to one or more second remote devices of said network if the response to said configuration information request is not received by the local device from said first remote device within a predetermined period of time or if the response to said configuration information request is received by the local device from said first remote device within the predetermined period of time and the response indicates that the local device has a higher priority than the first remote device;
and
operating the local device as a configuration services client to receive configuration services from said first remote device ~~with the local device as a client device~~ if the response is received within the predetermined period of time and said first remote device has a higher priority than said local device, wherein the local device is configured using the received configuration services from the first remote device when entering the network.

2. (Previously Presented) The method defined in claim 1, wherein said providing configuration services with the local device comprises:
- determining a first network address;
 - assigning a second network address;
 - assigning a network name;
 - correlating said first network address, said second network address, and said network name; and
 - recording said correlated first network address, said correlated second network address and said correlated network name in a table.
3. (Original) The method defined in claim 2, wherein said first network address comprises a media access control (MAC) address.
4. (Original) The method defined in claim 2, wherein said second network address comprises an Internet Protocol (IP) address.
5. (Original) The method defined in claim 2, wherein assigning said network name comprises:
- detecting a network name conflict;
 - resolving said network name conflict; and
 - recording a code in said table to indicate said network name conflict.

6. (Previously Presented) The method defined in claim 2, wherein said network name is suggested by said local device.

7. (Currently Amended) The method defined in claim 1, wherein the local device operates as a server device providing configuration services to the network even if the first remote device is available, if the priority of the local device is higher than the first remote device said predetermined period of time is varied.

8-11. (Canceled)

12. (Currently Amended) A method comprising:

determining service capability of a local device coupled to a network including whether said local device is capable of providing configuration services to one or more remote devices of said network;

operating the local device as a server device to provide ~~providing~~ configuration services to the one or more remote devices from the local device of said network if configuration services are not provided by a network device of the network having a higher priority than said local device, the provided configuration services including supplying user and group information to the one or more remote devices of the network; and

operating said local device as a client device to receive configuration services from a remote device if said remote device has a higher priority than said local device, wherein the local device is configured using the received configuration services from the remote device when entering the network.

13. (Currently Amended) The method defined in claim 12, wherein supplying user and group information comprises:

the network device detecting when said local device is connected to said network;

the network device sending a first user and group list to said local device in response to said local device connecting to said network;

said local device comparing said first user and group list with a second user and group list resident on said local device; and

said local device determining whether said first user and group list or said second user and group list is more recent;

the network device receiving a more recent user and group list from said local device;

the network device updating said user and group information to reflect said more recent user and group list; and

propagating said updated user and group information throughout said network.

14. (Original) The method defined in claim 13, wherein a time-stamp is used to determine whether said first user and group list or said second user and group list is more recent.

15. (Original) The method defined in claim 13, wherein updating said user and group information comprises recording said more recent user and group list in clear text.

16. (Original) The method defined in claim 15, wherein updating said user and group information comprises encrypting said user and group information prior to transmission across said network.
17. (Original) The method defined in claim 12, further comprising:
correlating said network address and said network name; and
storing said correlated network address and said correlated network name in a table.
18. (Previously Presented) The method defined claim 12, wherein said network name is suggested by said local device.
19. (Original) The method defined in claim 12, wherein HyperText Transfer Protocol (HTTP) is used to exchange information.
20. (Original) The method defined in claim 12, wherein Service Location Protocol (SLP) is used to exchange information.
21. (Currently Amended) A device configured to:
receive a first network address from a ~~second~~ remote device coupled ~~to said~~ over a network;
operate as a server device to provide network configuration services if said first network address is not received from said ~~second~~ remote device within a predetermined period of time;

~~determine its priority level on said network~~ communicating with the remote device over the network to determine whether its priority level is higher than the remote device, if said first network address is received from said ~~second~~ remote device;

operate as a server device to provide said network configuration services to members of the network including the remote device if said priority level is higher than a second priority level of said ~~second~~ remote device, wherein the remote device operates as a client device for receiving the configuration services in response to the determination of the priority level; and

operate as a client device to receive configuration services from said remote device if said remote device has a higher priority than said device, wherein said device is configured using the received configuration services from the remote device when entering the network.

22. (Canceled)

23. (Previously Presented) The device defined in claim 21 further configured to automatically:

assign a second network address;

assign a network name;

correlate said second network address with said network name; and

record said correlated second network address and said correlated network name in a table.

24. (Previously Presented) The device defined in claim 23, wherein said table further comprises:

a Media Access Control (MAC) address; and
a code to indicate a conflict with said network name.

25. (Previously Presented) The device defined in claim 23, wherein said first and second network addresses comprise Internet Protocol (IP) addresses.

26. (Currently Amended) A network comprising:

a first device configured to

assign an address to a second device on said network;

assign a network name to said second device on said network;

supply user and group information across said network; and

determine service capability of said second device on said network,

wherein if said first device is capable of providing configuration services to said network;

operate as a server device to provide configuration services to one or more devices of said network if configuration services are not provided by a network device having a higher priority than said device; and

operate as a client device to receive configuration services from said remote device if said remote device has a higher priority than said device, wherein the first device is configured using the received configuration services from the remote device when entering the network.

27. (Previously Presented) The network defined in claim 26, wherein said user and group information comprises:

a user name;

a password;

a group name having a second list of members allowed access to said group;

a time stamp; and

a character encoding code.

28. (Original) The network defined in claim 27, wherein said password is recorded in clear text.

29-30. (Canceled)

31. (Currently Amended) An apparatus comprising:

means for requesting, with a local device, configuration services from a remote device coupled to the network in response to connecting the local device to the network;

means for operating the local device as a configuration services server to provide configuration services to one or more remote devices of said network if the response to said configuration information request is not received by the local device from said remote device within a predetermined period of time or if the response to said configuration information request is received by the local device from said remote device within the predetermined period of time and the response indicates that the local device has a higher priority than the remote device; and

means for operating the local device as a client device to said remote device if the response is received within the predetermined period of time and said remote device has a higher priority than said local device, wherein the local device is configured using the received configuration services from the remote device when entering the network.

32. (Original) The apparatus defined in claim 31, wherein said means for providing configuration services comprises:

means for determining a first network address;

means for assigning a second network address;

means for assigning a network name;

means for correlating said first network address, said second network address, and said network name; and

means for recording said correlated first network address, said correlated second network address and said correlated network name in a table.

33. (Original) The apparatus defined in claim 32, wherein said first network address comprises a media access control (MAC) address.

34. (Original) The apparatus defined in claim 32, wherein said second network address comprises an Internet Protocol (IP) address.

35. (Original) The apparatus defined in claim 32, wherein the means for assigning said network name comprises:

means for detecting a network name conflict;

means for resolving said network name conflict; and

means for recording a code in said table to indicate said network name conflict.

36. (Original) The apparatus defined in claim 32, wherein said network name is suggested by said local device.

37. (Original) The apparatus defined in claim 31, wherein said predetermined period of time is varied.

38. (Currently Amended) An apparatus comprising:

means for assigning an address to a local device on said network;

means for assigning a network name to said local device;

means for supplying user and group information across said network; and

means for determining service capability of said local device including whether said local device is capable of providing configuration services to one or more remote devices of said network;

means for providing configuration services to one or more devices of said network if configuration services are not provided by a network device having a higher priority than said local device, the configuration services being provided to the network device having a lower priority than the local device; and

means for operating as a client device to receive configuration services from a remote device if said remote device has a higher priority than said local device, wherein the local device

is configured using the received configuration services from the network device when entering the network.

39. (Original) The apparatus defined in claim 38, wherein the means for supplying user and group information comprises:

means for detecting when said local device is connected to said network;

means for sending a first user and group list to said local device in response to said local device connecting to said network;

means for said local device comparing said first user and group list with a second user and group list resident on said local device; and

means for said local device determining whether said first user and group list or said second user and group list is more recent;

means for receiving a more recent user and group list from said local device;

means for updating said user and group information to reflect said more recent user and group list; and

means for propagating said updated user and group information throughout said network.

40. (Original) The apparatus defined in claim 39, wherein a time-stamp is used to determine whether said first user and group list or said second user and group list is more recent.

41. (Original) The apparatus defined in claim 39, wherein means for updating said user and group information comprises means for recording said more recent user and group list in clear text.

42. (Original) The apparatus defined in claim 41, wherein means for updating said user and group information comprises means for encrypting said user and group information prior to transmission across said network.

43. (Original) The apparatus defined in claim 38, further comprising:
means for correlating said network address and said network name; and
means for storing said correlated network address and said correlated network name in a table.

44. (Original) The apparatus defined claim 38, wherein said network name is suggested by said local device.

45. (Original) The apparatus defined in claim 38, wherein HyperText Transfer Protocol (HTTP) is used to exchange information.

46. (Original) The apparatus defined in claim 38, wherein Service Location Protocol (SLP) is used to exchange information.

47. (New) The method of claim 1, wherein the local device is associated with one of a plurality of operating states including an initial state, non-master state, temporary master state, and a master state, wherein whether the local device should operate as a client device or a server

device is determined based on the operating state the local device is being associated at a point in time.

48. (New) The method of claim 47, wherein the master state is assigned when the local device is configured to provide configuration services to the network, wherein the initial state is assigned when the local device is manufactured, wherein the non-master state is assigned when the local device is configured as a server device but does not currently provide services to the network, and wherein temporary master state is assigned when the local device temporary provides configuration services to the network while a master server is unavailable and until the master server becomes available.

49. (New) The method of claim 47, wherein if the local device is in the master state when it enters the network, the local device operates as the configuration services server to provide configuration services to rest of the members in the network if the local device has a highest priority than the rest of the server devices in the network.

50. (New) The method of claim 49, wherein if the local device is not in the master state when it enters the network, the local device transmits a broadcast message to the network to request configuration services from any server device of the network.

51. (New) The method of claim 50, wherein if a response associated with the request is received by the local device from the first remote device within a predetermined period of time, the local device transitions to the non-master state and operates as a client device that receives

the configuration services from the first remote device and is configured using the received configuration services.

52. (New) The method of claim 51, further comprising:

determining whether the local device is in the non-master state if the response is not received within the predetermined period of time;
transitioning the local device into the temporary master state if the local device is in the non-master state; and
operating the local device as a temporary configuration server to provide temporary configurations services to the network until a remote configuration server becomes available which takes over the temporary services provided from the local device.

53. (New) The method of claim 52, further comprising:

the local device substantially concurrently transmitting a discovery message to the network to discover whether another server device becomes available; and
the local device informing the network that no more new configuration service is available from the local device, if a response with respect to the discovery message is received by the local device from the another server device.

54. (New) The method of claim 53, further comprising:

the local device determining whether at least one other device of the network is still subscribing configuration services from the local device; and

the local device terminating the configuration services if no more other device of the network is subscribing the configuration services from the local device.

55. (New) The method of claim 54, further comprising operating the local device as a client device to the another server device to receive further configuration services after terminating the configuration services of the local device.

56. (New) The method of claim 52, further comprising:
determining whether the local device is in the initial state if it is determined that the local device is not in the non-master state when the response is not received within the predetermined period of time;
transitioning the local device into the master state if the local device was in the initial state; and
operating the local device as a server device to provide configuration services to the network.

57. (New) The method of claim 56, further comprising:
prompting a user for entering an operating state that the local device is intended to enter;
and
operating the local device as a temporary server device or a master server device if the user entered operating state is not a non-master state.